May 9, 2001

Mr. James Krieger
Heartwood Manufacturing, Inc.
1646 Lammers Pike
Batesville, Indiana 47006

Re: Registered Operation Status,
137-13752-00009

Dear Mr. Krieger:

The application from Heartwood Manufacturing, Inc., received on January 3, 2001, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following custom woodworking shop, to be located at 1646 Lammers Pike, Batesville, Indiana, is classified as registered:

(a) Four (4) spray booths (A, B, C, D) controlled with dry filters venting to the atmosphere through stacks (A, B, C, D) respectively.

(b) One (1) natural gas-fired air make-up unit, with a fuel input rating of 3.024 MMBtu venting to the atmosphere.

(c) One (1) woodworking shop equipped with a dust collection system venting to a Torit baghouse and a MRM-14-4D baghouse.

The following conditions shall be applicable:

1. Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:

    (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

    (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuos opacity monitor in a six (6) hour period.

2. Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating) The surface coating applied to wood furniture and cabinets shall utilize one of the following application methods:

    Airless Spray Application
    Air Assisted Airless Spray Application
    Electrostatic Spray Application
    Electrostatic Bell or Disc Application
    Heated Airless Spray Application
    Roller Coating

Brush or Wipe Application
Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

3. Pursuant to 326 IAC 6-3-2 (Process Operations) The particulate matter (PM) from the woodworking and surface coating operations shall be limited to 2.03 pounds per hour.

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

For Heartwood's woodworking operations, which has a process rate of 700 lbs (0.35 tons) per hour, the allowable PM emissions would be 2.029.

$E = 4.10\ (0.35)^{0.67} = 4.10(0.495) = 2.029$ pounds PM/hr

The baghouse shall be in operation at all times the woodworking facility is in operation, in order to comply with this limit.

This registration is issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.1-2(f)(3). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

ERG/RB

cc: File - Ripley County
Ripley County Health Department
Air Compliance - D.J. Knotts
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Registration
Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3)

Company Name:	Heartwood Manufacturing, Inc.
Address:	1646 Lammers Pike
City:	Batesville, Indiana
Authorized individual:	James Krieger
Phone #:	(812) 934-5920
Registration #:	137-13752-00009

I hereby certify that Heartwood Manufacturing, Inc. is still in operation and is in compliance with the requirements of Registration 137-13752-00009.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name: Heartwood Manufacturing, Inc.
Source Location: 1646 Lammers Pike, Batesville, Indiana, 47006
County: Ripley
SIC Code: 2541
Operation Permit No.: 137-13752-00009
Permit Reviewer: ERG/RB

The Office of Air Quality (OAQ) has reviewed an application from Heartwood Manufacturing, Inc. relating to the construction and operation of custom woodworking.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) Four (4) spray booths (A, B, C, D) controlled with dry filters venting to the atmosphere through stacks (A, B, C, D) respectively.

(b) One (1) natural gas-fired air make-up unit, with a fuel input rating of 3.024 MMBtu venting to the atmosphere.*

(c) One (1) woodworking shop equipped with a dust collection system venting to a Torit baghouse and a MRM-14-4D baghouse.

*Note, this unit was not included on any previous permit, but emissions are exemption levels.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

There are no new construction activities included in this permit.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) Registration CP 137-3603-00009, issued on April 20, 1994; and

(b) Registration CP 137-9856-00009, issued on August 6, 1998.

All conditions from previous approvals were incorporated into this permit.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
A	Paint Booth A	22	1.5	4,200	72
B	Paint Booth B	22	3.5	9,600	72
C	Paint Booth C	24.8	2.8	10,500	72
D	Paint Booth D	24.8	2.8	10,500	72

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on January 3, 2001, with additional information received on February 19, 2001 and April 10, 2001.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 through 5)

Potential To Emit Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	9.3
PM-10	4.5
SO_2	0.01
VOC	14.0
CO	1.1
NO_x	1.3
Single HAP	1.0
Total HAPs	2.74

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than 25 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-6.1.

(c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than the levels listed in 326 IAC 2-1.1-3(d)(1), therefore, the source is subject to the provisions of 326 IAC 2-1.1-3 or are greater than levels listed in 326 IAC 2-1.1-3(d)(1), therefore the source is subject to the provisions of 326 IAC 2-5.5.1.

(d) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year, the most significant potential emissions are associated with Toluene (1.00 ton per year);and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year (for Heartwood total potential HAP emissions are 2.74 tons per year). Therefore, the source is not subject to the provisions of 326 IAC 2-7.

County Attainment Status

The source is located in Ripley County.

Pollutant	Status
PM-10	Attainment
SO_2	Attainment
NO_2	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Ripley County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Ripley County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	0.2
PM10	0.2
SO_2	0.008
VOC	1.40
CO	1.1
NO_x	1.3

(a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

(b) These emissions were based on data provided in the permit application.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
(c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) 40 CFR Part 63 Subpart JJ (Wood Furniture Manufacturing) does not apply as the source is not a major source as defined in 40 CFR Part 63 Subpart A, 63.2.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Ripley County and the potential to emit any criteria pollutant is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of custom woodworking facility will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 8-1-6 (New Facilities - General Reduction Requirement)

This source does not have potential VOC emissions equal to or greater than twenty five (25) tons per year, and the source is subject to 8-2-12, therefore this source is not subject to the provisions of 326 IAC 8-1-6.

326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)

The surface coating applied to wood furniture and cabinets shall utilize one of the following application methods:

Airless Spray Application
Air Assisted Airless Spray Application

Electrostatic Spray Application
Electrostatic Bell or Disc Application
Heated Airless Spray Application
Roller Coating
Brush or Wipe Application
Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the woodworking and surface coating operations shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

For Heartwood's woodworking operations, which has a process rate of 700 lbs (0.35 tons) per hour, the allowable PM emissions would be 2.029.

$E = 4.10\ (0.35)^{0.67} = 4.10(0.495) = 2.029$ pounds PM/hr

The baghouse shall be in operation at all times the woodworking facility is in operation, in order to comply with this limit.

Conclusion

The operation of this custom woodworking facility shall be subject to the conditions of the attached Registration 137-13752-00009.

Appendix A: Emissions Calculations
Summary Potental Emissions
Company Name: **Heartwood Manufacturing, Inc.**
Address City IN Zip: **1646 Lammers Pike, Batesville, Indiana 47006**
CP: **137-13752**
Plt ID: **137-00009**
Reviewer: ERG/RB
Date: February 27, 2001

Potential emissions (tons/year)

Process	PM*	PM10*	SO2	NOx	VOC	CO
Combustion	0.101	0.101	0.008	1.325	0.073	1.113
Coating	3.812	3.812	0.000	0.000	13.896	0.000
WoodWorking	5.432	0.543	0.000	0.000	0.000	0.000
Total	9.345	4.456	0.008	1.325	13.969	1.113

Potential emissions (lbs/hr)

Process	PM*	PM10*	SO2	NOx	VOC	CO
Combustion	0.023	0.023	0.002	0.303	0.017	0.254
Coating	0.870	0.870	0.000	0.000	3.173	0.000
WoodWorking	1.240	0.124	0.000	0.000	0.000	0.000
Total	2.134	1.017	0.002	0.303	3.189	0.254

Controlled emissions (tons/year)

Process	PM*	PM10*	SO2	NOx	VOC	CO
Combustion	0.101	0.101	0.008	1.325	0.073	1.113
Coating	0.114	0.114	0.000	0.000	13.896	0.000
WoodWorking	0.001	0.000	0.000	0.000	0.000	0.000
Total	0.216	0.215	0.008	1.325	13.969	1.113

Controlled emissions (lbs/hr)

Process	PM*	PM10*	SO2	NOx	VOC	CO
Combustion	0.023	0.023	0.002	0.303	0.017	0.254
Coating	0.026	0.026	0.000	0.000	3.173	0.000
WoodWorking	0.000	0.000	0.000	0.000	0.000	0.000
Total	0.049	0.049	0.002	0.303	3.189	0.254

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Company Name: **Heartwood Manufacturing, Inc.**
Address City IN Zip: **1646 Lammers Pike, Batesville, Indiana 47006**
CP: **137-13752**
Plt ID: **137-00009**
Reviewer: ERG/RB
Date: February 27, 2001

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
3.0	26.5

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.1	0.1	0.0	1.3	0.1	1.1

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).
See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Company Name: **Heartwood Manufacturing, Inc.**
Address City IN Zip: **1646 Lammers Pike, Batesville, Indiana 47006**
CP: **137-13752**
Plt ID: **137-00009**
Reviewer: ERG/RB
Date: February 27, 2001

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	2.781E-05	1.589E-05	9.934E-04	2.384E-02	4.503E-05

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	6.623E-06	1.457E-05	1.854E-05	5.033E-06	2.781E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: **Heartwood Manufacturing, Inc.**
Address City IN Zip: **1646 Lammers Pike, Batesville, Indiana 47006**
CP: **137-13752**
Plt ID: **137-00009**
Reviewer: ERG/RB
Date: February 27, 2001

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
A - RelPlaz	7.92	38.50%	0.0%	38.5%	0.0%	29.40%	0.02000	4.000	3.05	3.05	0.24	5.85	1.07	0.43	10.37	75%
A- Sealer	7.67	42.50%	0.0%	42.5%	0.0%	21.20%	0.02000	4.000	3.26	3.26	0.26	6.26	1.14	0.39	15.38	75%
A-Catalyst	9.06	32.00%	0.0%	32.0%	0.0%	46.35%	0.00070	4.000	2.90	2.90	0.01	0.19	0.04	0.02	6.26	75%
A-NGR Stain	6.70	98.50%	0.0%	98.5%	0.0%	0.78%	0.02000	4.000	6.60	6.60	0.53	12.67	2.31	0.04	846.09	0%
A-Wipe Stain	7.61	64.26%	0.0%	64.3%	0.0%	24.86%	0.02000	4.000	4.89	4.89	0.39	9.39	1.71	0.95	19.67	0%
A-Lacquer Thinner	6.63	100.00%	0.0%	100.0%	0.0%	0.00%	0.01000	4.000	6.63	6.63	0.27	6.36	1.16	0.00	ERR	0%
B- RelPlaz	7.92	38.50%	0.0%	38.5%	0.0%	29.40%	0.02000	4.000	3.05	3.05	0.24	5.85	1.07	0.43	10.37	75%
B- Sealer	7.67	42.50%	0.0%	42.5%	0.0%	21.20%	0.02000	4.000	3.26	3.26	0.26	6.26	1.14	0.39	15.38	75%
B-Catalyst	9.06	32.00%	0.0%	32.0%	0.0%	46.35%	0.00070	4.000	2.90	2.90	0.01	0.19	0.04	0.02	6.26	75%
B-NGR Stain	6.70	98.50%	0.0%	98.5%	0.0%	0.78%	0.02000	4.000	6.60	6.60	0.53	12.67	2.31	0.04	846.09	0%
B-Wipe Stain	7.61	64.26%	0.0%	64.3%	0.0%	24.86%	0.02000	4.000	4.89	4.89	0.39	9.39	1.71	0.95	19.67	0%
B-Lacquer Thinner	6.63	100.00%	0.0%	100.0%	0.0%	0.00%	0.01000	4.000	6.63	6.63	0.27	6.36	1.16	0.00	ERR	0%
C- Sealer	7.67	42.50%	0.0%	42.5%	0.0%	21.20%	0.02000	4.000	3.26	3.26	0.26	6.26	1.14	0.39	15.38	75%
C-Catalyst	9.06	32.00%	0.0%	32.0%	0.0%	46.35%	0.00070	4.000	2.90	2.90	0.01	0.19	0.04	0.02	6.26	75%
C-NGR Stain	6.70	98.50%	0.0%	98.5%	0.0%	0.78%	0.02000	4.000	6.60	6.60	0.53	12.67	2.31	0.04	846.09	0%
C-Wipe Stain	7.61	64.26%	0.0%	64.3%	0.0%	24.86%	0.02000	4.000	4.89	4.89	0.39	9.39	1.71	0.95	19.67	0%
C-Lacquer Thinner	6.63	100.00%	0.0%	100.0%	0.0%	0.00%	0.01000	4.000	6.63	6.63	0.27	6.36	1.16	0.00	ERR	0%
D - RelPlaz	7.92	38.50%	0.0%	38.5%	0.0%	29.40%	0.02000	4.000	3.05	3.05	0.24	5.85	1.07	0.43	10.37	75%
D- Sealer	7.67	42.50%	0.0%	42.5%	0.0%	21.20%	0.02000	4.000	3.26	3.26	0.26	6.26	1.14	0.39	15.38	75%
D-Catalyst	9.06	32.00%	0.0%	32.0%	0.0%	46.35%	0.00070	4.000	2.90	2.90	0.01	0.19	0.04	0.02	6.26	75%
D-NGR Stain	6.70	98.50%	0.0%	98.5%	0.0%	0.78%	0.02000	4.000	6.60	6.60	0.53	12.67	2.31	0.04	846.09	0%
D-Wipe Stain	7.61	64.26%	0.0%	64.3%	0.0%	24.86%	0.02000	4.000	4.89	4.89	0.39	9.39	1.71	0.95	19.67	0%
D-Lacquer Thinner	6.63	100.00%	0.0%	100.0%	0.0%	0.00%	0.01000	4.000	6.63	6.63	0.27	6.36	1.16	0.00	ERR	0%
State Potential Emissions			**Add worst case coating to all solvents**										**13.90**	**3.81**		

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emissions Calculations

Woodworking

Company Name: **Heartwood Manufacturing, Inc.**
Address City IN Zip: **1646 Lammers Pike, Batesville, Indiana 47006**
CP: **137-13752**
Plt ID: **137-00009**
Reviewer: ERG/RB
Date: February 27, 2001

	Tons/Year	**Lbs/hr**
PM collected*	5.4312	1.24
Assume % PM10	10.00%	
PM10 collected	0.54312	0.124
Controll Efficiency*	99.99%	99.99%
Controlled PM Emissions	0.001	0.000
Controlled PM10 Emissions	0.000	0.000
Total PM Potential to Emit	5.432	1.240
Total PM10 Potential to Emit	0.543	0.124

* Data provided by the source